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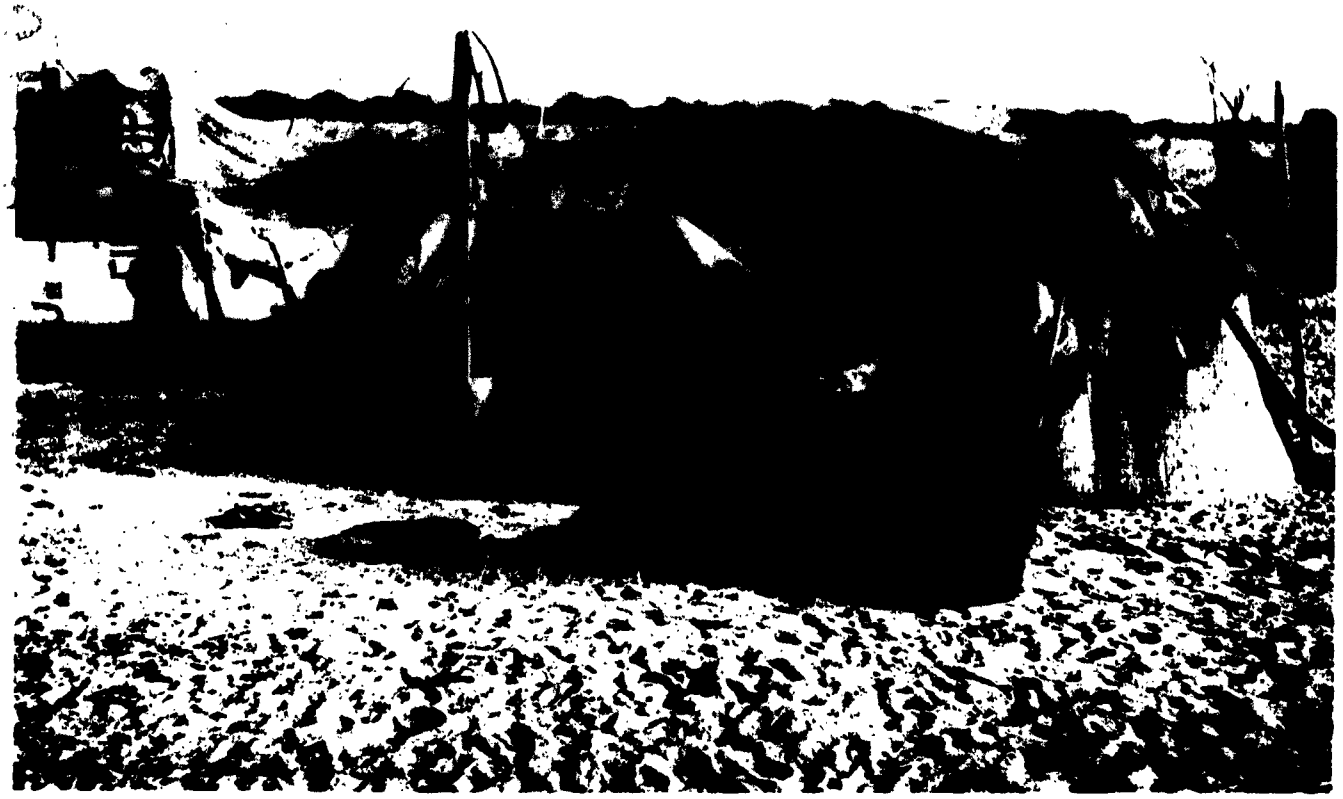

Mauritania: Touaregs sitting before their tents

PORT-ÉTIENNE:

MAURITANIA'S NEW GATEWAY TO THE WORLD

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PORT ÉTIENNE: MAURITANIA'S NEW GATEWAY TO THE WORLD

Present-day Port-Étienne is a small provincial Mauritanian town with a permanent population not exceeding 2,500 inhabitants. Its economic life is based almost entirely upon the catching, processing, and shipping of fish. However, it is not the home port for most of the fishing vessels exploiting the rich waters of Levrier Bay and neighboring coastal waters, as one might expect, for it treats only a small portion of the total catch in the vicinity. Out of a current total haul by the international flotilla operating in the vicinity of close to 150,000 tons of fish, only approximately 10,000 tons are treated by the drying and salting facilities of the port, the remainder being treated principally in France, Spain, and Portugal.[1]

The failure on the part of Port-Étienne to attract a larger portion of the local catch is almost entirely due to the excessively high operating costs at the port. It is generally agreed that these costs could be considerably reduced if a larger volume were handled by the port, but these high operating costs have in turn discouraged the inflow of investment capital. Thus, a vicious cycle has been set into motion - a cycle which probably has been broken by the decision of "La Société Anonyme des Mines de Fer de Mauritanie" (MIFERMA) to use Port-Étienne as the evacuation point for the immense and rich iron ore deposit near Fort-Gouraud. With this stimulus, Port-

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[1] See "Port-Étienne: future fenêtre atlantique de la Mauritanie," Europe-France Outremer, No. 363 (Février 1960), 48-51.

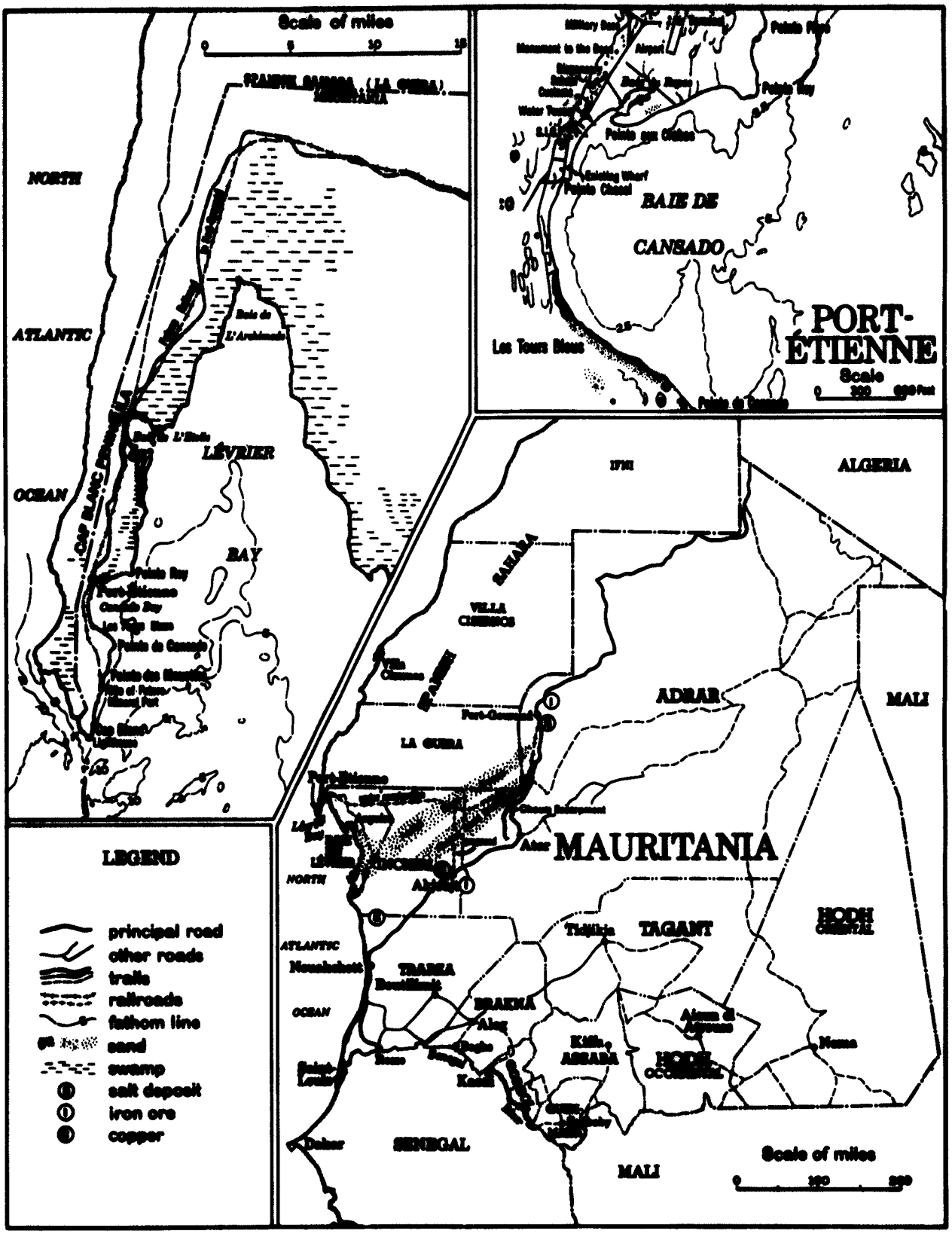

Fig. 1 - Upper Left: Lévrier Bay and surrounding regions.
Upper Right: The city and port of Port-Étienne.
Lower Right: The potential hinterland behind Port-Étienne.

Étienne, is virtually certain to develop into one of the world's leading iron ore ports, an important copper evacuation point, and one of Africa's finest fishing centers. And with this development, the present-day monopoly of Dakar as the sole port for virtually the entire extra-African trade of Mauritania will finally be broken. Thus, the importance of Port-Étienne, the only port in Mauritania, lies not in what it is today but rather in what it will become by 1963-64, when the first iron ore shipments are scheduled to leave Mauritania for the blast furnaces of Europe.

The Site and Location of Port-Étienne

Founded by the French in 1904 as a fishing port near the former important rest station and gum center of Arguin, Port-Étienne has continued in this single role to the present day. The port owes its limited fortune to exceptionally fine site and locational factors. The town and port lie on the eastern side of the southward protruding sandstone Cape Blanc Peninsula on Cansado Bay, a small indentation of the larger Levrier Bay. The similarity of site factors between Port-Étienne and Dakar is immediately striking, Dakar being situated on the eastern side of the southward protruding hook of Cape Verde Peninsula on Dakar Bay, a small indentation of the larger Gorée Bay. In both instances also, the southward peninsular protrusion offers natural protection to the harbor from the plague of the shifting coastal sands so common in West Africa.

Port-Étienne offers the only protected bay between Casablanca, Morocco, and Dakar easily accessible to deep-draft ocean-going vessels, the maximum depth in Cansado Bay being over 7 meters. Thus, in terms of site factors alone, Port-Étienne and Dakar are fairly comparable. However, locational factors have conditioned far different fortunes for the two. Dakar was favored by its location at virtually the extreme westerly point of continental Africa, its more favorable latitudinal position in terms of hinterland productivity, its centralization along the coast under French control, and its relative nearness to the Senegal River route into the sudan. Port-Étienne's modest prosperity to date has been due to its location in relation to the ichthyological riches of the coastal and nearby international waters, especially those of the Arguin Bank. The conjunction of the cool Canary and warm Equatorial Currents along the Mauritanian continental shelf and its consequent richness in plankton and submarine vegetation has made a vast aquarium of the coast between Cape Timiris and Cape Blanc, where species from the Mediterranean Sea, the Atlantic Ocean, and the American and Guinea Coasts are to be found. A fortunate consequence of this natural factor is that the difference in varieties permits year-round fishing. Thus, this fortuitous locational factor has salvaged some benefit from this favorable site, whose dry desertic hinterland has hitherto produced virtually no exportable commodity.

Port Structure and Traffic

The existent port structure of Port-Étienne dates only from the

close of World War II. It consists of a single concrete wharf 80 x 25 meters parallel to and connected with the shore by a 225 x 9-meter concrete gangway. It provides two berths for medium sized vessels drawing not more than five meters. Larger ships must remain anchored in the bay and be loaded and/or discharged by means of costly and time-consuming lighters. In addition, there are three small inclined concrete unloading platforms accessible to the smaller boats, principally those of the Canary fishermen.[2] A small shipway for the repairing of vessels up to 300 tons completes the catalogue of present facilities, facilities which are adequate for current fishing needs.

While the French, Spanish, Portuguese, Italian, Greek, Israeli, and Moroccan fishermen come to Mauritanian waters primarily for tuna, lobsters, and miscellaneous trawler haulage for home consumption, virtually the entire supply unloaded at Port-Étienne comes from the boats of the Canary fishermen, with only 2-3 per cent coming from the local Moorish tribe known as the Imragen. The entire supply (approximately 10,000 tons) is cleaned, salted, and/or smoked--the arid, warm climate being ideal for drying fish in the open--with a consequent weight reduction of close to 75 per cent. In 1958, the total final production amounted to 3,091 tons, approximately 50 per cent of which was handled by "La Société Industrielle de la Grande Pêche" (S. I. G. P.), the oldest (founded in 1919) and largest industrial establishment at

[2] A Franco-Spanish agreement signed on June 17, 1900 provides that approximately one-third of the catch of Canary Island fishermen in Mauritanian waters is to be unloaded and processed at Port-Étienne.

Port-Étienne. The remainder was handled by "La Société Franco-Africaine de Conserves" (S.O.F.A.C.) and numerous smaller installations.[3]

Virtually the entire export trade of Port-Étienne consists of salted and/or dried fish. The principle markets are in Gabon and the Republic of the Congo (capital at Brazzaville), which accounted for over 90 per cent of Port-Étienne's exports in 1958, the remainder going to ex-Belgian Congo, Ghana, Ivory Coast, Dahomey, and the Federal Republic of Cameroon. Competition for this trade comes chiefly from the Canary Islands and Angola. The remaining exports, approximately one per cent by weight, though considerably more by value, consist of caviar, canned fish, lobsters, and fresh fish (flown out by air), the principal markets for which are in France.

Mauritanian imports via Port-Étienne in 1958 amounted to 4,463 tons (Table I), and consisted of food, petroleum products, construction materials, miscellaneous manufactured goods, and a little water. Prior to the construction of the water distillation plant by "La Compagnie Énergie-A.O.F." in 1954, water was brought into Port-Étienne by boat from Bordeaux or Dakar, a costly process still continued to a limited extent by S.I.G.P. This plant, with a daily capacity of approximately 160-200 cubic meters, has resulted in a diminution of the price of water per cubic meter from $5.60 to $3.60, a price still too high for wide scale consumption. However, production is insufficient to meet normal

[3]See Larrat, H., "La transformation des produits de la mer et l'essor de Port-Étienne," Industries et Travaux d'Outremer, No. 75. (Février 1960), 79-91.

TABLE I: Merchandise Traffic at Port-Étienne by Carrier for 1958 and 1959 (metric tons)

Name of Carrier	Debarkations		Embarkations	
	1958	1959	1958	1959
Compagnie de Navigation Paquet	598	514	141	49
Société Navale Delmas-Vieljeux	571	446	3,075	2,666
Société Navale Import-Export	3,248	2,886	512	482
Société Navale de l'Ouest	45	-	-	-
Total	4,463*	3,846	3,728	3,197

* Difference due to rounding off of figures.

Source: Personal files of Maurel et Prom, shipping agents, Saint-Louis.

demands, and water rationing is normally practiced. "La Compagnie Énergie-A.O.F." also produces electric power for the town, though limited demand has caused the price per kilowatt-hour to range from $0.08 to $0.20 depending on the usage.[4]

The growth of Port-Étienne has been inhibited by: (1) the necessity to import virtually all of its needs; (2) a surcharge of approximately 25 per cent on imported goods owing to the primitive port facilities; (3) the scarcity of local labor; and (4) a hinterland limited virtually to the town and its immediate environs. Only rudimentary trails have existed from Port-Étienne to Nouakchott and to points in the interior, which is, in any case, not very productive. With the now certain development of the iron ore deposit at Fort Gouraud and the construction of a rail link between this deposit and the projected mineral port at Port-Étienne, the port should develop further as a fishing center and as the port for a large portion of newly independent Mauritania. With its development, the areal extent of the current hinterland of Dakar in Mauritania is certain to be diminished.

The Mineral Hinterland

At present, the only mineral deposits being exploited commercially in Mauritania, and these at a diminishing rate, are the open rock salt deposits in the cercles of Adrar (near Fort-Gouraud) and Trarza (at N'Terert). Historically an important element in the Saharan caravan

[4]See Larrat, p. 91, and Didier, Henry, "Port-Étienne - son aménagement, son avenir," Industries et Travaux d' Outremer, No. 75 (Février 1960), 61-71.

trade, especially towards Senegal and Mali, these relatively remote deposits have suffered from competition from the easily accessible Sine-Saloum salt marshes near Kaolock in Senegal and the Taoudeni deposits in northern Mali. From a combined output of over 4,000 tons in 1954, annual production has dipped to approximately 1,000 tons.[5] With increased nationalistic pressures, expanded fish processing at Port-Étienne (which now secures its limited requirement of salt from the Sine-Saloum deposit), and with the opening-up of transportation facilities at and behind Port-Étienne, salt production should increase in the future. Most of the enlarged production will probably appear only indirectly in port statistics as a component of smoked and/or dried fish, with possible exports to various West African states in direct competition with the deposit near Kaolack. However, potential Mauritanian salt exports via Port-Étienne (or even via the possible wharf at Nouakchott) will certainly be dwarfed by the exports of the two important metallic ores which have not hitherto been exploited in Mauritania--iron and copper.

Iron Ore Deposit of Fort-Gouraud

The rich iron-bearing massif of Kédia d' Idjil, 180 miles north of Atar and just east of the small Saharan garrison town of Fort-Gouraud, was discovered in 1934, though precise mineralogical surveys were not undertaken until the close of the second world conflict. By

[5] "La République Islamique de Mauritanie," Notes et Études Documentaires, No. 2,687 (29 Juillet 1960), 22.

1952, sufficient faith was placed in the economic potential of the massif that an agreement was signed between "Le Bureau Minier de la France d'Outre-Mer" and certain French and foreign industrial groups creating "La Société Anonyme des Mines de Fer de Mauritanie" (MIFERMA), a corporation whose object is the exploitation of the deposit and its evacuation by rail to the Atlantic coast. This agreement was substantially ratified seven years later by the then semi-independent government of Mauritania. An original investment of 5 million dollars, a loan of 65 million dollars announced in March 1960 by the International Bank for Reconstruction and Development to MIFERMA, and guaranties by the governments of France and Mauritania completed the capital arrangement of the company. Early in 1960, work was begun on the first stage of the development of Port-Étienne, chosen as the terminus of the rail line between Fort-Gouraud and the Atlantic Ocean, and on the debarkation of the necessary construction material, which should result in the first shipment of this ore to the blast furnaces of Europe by 1963 or 1964.

The Kédia d' Idjil Massif contains estimated exploitable reserves in excess of 140 million tons of high grade hematite ore ranging in iron content from 45 to 69 per cent, the commercial average being 63 per cent. This high metallic content coupled with a very low phosphorus, aluminum, and silica content, ranks the four beds which constitute this deposit among the finest in the world. Provisional estimates call for an original annual production of 4 million tons of ore, to be raised eventually to 6 million tons. With open pit operations possible, and a fortuitous supply of underground well water (1,000 m^3 daily) at Tasadit

available for the needs of MIFERMA and Fort-Gouraud, no serious obstacle to the exploitation of this deposit appears on the immediate horizon.[6]

Evacuation of the Fort-Gourand iron ore is to be via a railroad joining Fort-Gouraud to a newly constructed mineral port approximately six miles south of the present installations at Port-Étienne. During the course of preliminary discussions, two possible evacuation routes were advanced: (1) joining Fort-Gouraud with the Atlantic Ocean at Villa Cisneros on Rio de Oro Bay in the Spanish colony of Rio de Oro; and (2) the subsequently adopted route to Port-Étienne. The former route would have been more economical because it would have necessitated a rail link only 247 miles in length as compared with the 394 miles required on the adopted route. However, in 1960 discussions with the Spanish authorities were discontinued, owing to the French belief that Spanish demands were excessive, and Port-Étienne was definitely selected. Subsequent discussions with the Spanish authorities aimed at avoiding the Choum Escarpment on the railroad to Port-Étienne by cutting across the southeast corner of Rio de Oro were equally fruitless, with the result that the new railroad will run entirely within the boundaries of Mauritania, traversing the escarpment by means of a tunnel or a deep entrenchment. The only other local difficulties to be encountered in this generally flat country are the dunes of Akchar and Azefal, and the barchanal dunes of Cape Blanc Peninsula, although these once formidable

[6]See Robin, Jean, "Le Fer de Fort-Gouraud," Europe-France Outremer, No. 363 (Février 1960), 31-35.

barriers to the extension of the hinterland of Port-Etienne can now be easily overcome with modern engineering techniques. This one-meter gauge railroad should be completed by 1963-64, carrying Fort-Gouraud iron ore to the partially operating, though not yet completed, mineral port of Port-Étienne.

The first stage of port development, completed in 1960, resulted in the improvement of the single fishing wharf in the port by the addition of a modern lighterage quay and the dredging to -8.00 meters of the alongside depths, thus making Port-Étienne open for direct accostage by approximately 70 per cent of the commercial shipping fleet serving West Africa. This was necessary for the economical debarkation of the approximately 400,000 tons of material necessary for the projected construction. Unless the general commercial traffic of the port should increase beyond present foreseeable figures, this single wharf, probably further improved, will remain the sole deep-water wharf of the commercial port, handling the general cargo needs of the port as well as the larger fishing vessels. However, should traffic warrant, a not very likely eventuality, a new deep-water commercial port could be constructed at Pointe Rey, Pointe des Mouettes, or at Les Tours Bleus, with the modernised wharf and quay catering solely to fishing needs.

The mineral facilities at Port-Étienne are to be separate and distinct from the commercial and fishing ports, being approximately six miles south of the present wharf, where stable depths of 15 meters are to be found at a distance of 400 meters from the coast. A quay

parallel to, but lying off the shore, is to be constructed. This quay, with an alongside depth of 13.5 meters, will measure 245 meters by 19 meters, and will be connected to the mainland by means of a 425-meter long ramp. Modern loading equipment and an open stockage area capable of storing up to one million tons of ore rounds out the general picture of this future port, which, when completed, will be able to handle modern 65,000 ton mineral freighters up to 240 meters long with a maximum draft of up to 12.5 meters. Virtually assured markets for this iron ore are or will be found in the newly or to be constructed coastal iron and steel complexes of France, Great Britain, Italy, and West Germany.

The completion of the new port, the railroad, and associated facilities will in all probability give a strong direct or indirect impetus to the development of other facets of the port and the hinterland economy. The inhibiting factor of present-day high costs at Port-Étienne to the expansion of an otherwise logical large-scale fishing industry has already been noted. With the increased demand for water, diesel fuel, and electricity brought about by the new installations, economical large-scale production and exploitation of new sources can and will be introduced. Underground fresh water will be tapped from a source less than 50 miles away and brought to Port-Étienne by means of railroad tank cars or an eventual pipe line at an estimated cost of $0.80 per cubic meter (compared to $3.60 today). Direct tanker service via pipeline to storage facilities on the mainland is to replace the importation of diesel fuel

in drums, with a consequent price reduction to a level more in accord with world prices. Construction by MIFERMA of a large thermo-electric plant will cut electricity costs by over 50 per cent. These and other less spectacular savings will in all probability lead to a larger domestically based fishing fleet, modern ice producing plants, cold storage facilities, canneries, fish fertilizer plants, and other facilities exploiting the rich waters nearby. It is estimated that within a few years the tonnage of fish locally treated, will quadruple, and Port-Étienne will become one of the foremost fishing ports of West Africa.[7]

Copper Ore Deposits of Akjoujt

The construction of the Fort-Gouraud-Port-Étienne rail link and the development of Port-Étienne is also likely to stimulate renewed interest in the exploitation of the relatively rich Guelb-Moghrein copper ore deposit located two miles west of Akjoujt. In 1953, eight years after the discovery of this deposit, "La Société des Mines de Cuivre de Mauritanie" (MICUMA) was formed to study the possibility and conditions of its exploitation, a study whose preliminary work was concluded in 1959 and is currently in semi-abeyance. Geological studies

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7 For discussions of the new port and the connecting transportation lines see:
Didier, loc. cit.
Noguier, Pierre, "Port-Étienne: port de pêche et de commerce de la Mauritanie," Industries et Travaux d'Outremer, No. 75 (Février 1960), 73-78.

have indicated that his deposit contains approximately 500,000 tons of copper. The upper two-fifths of the deposit lies in the oxidised zone, where the average copper content is 2.8 per cent; the deeper three-fifths of the deposit lies in the reducing zone and has an average copper content of 1.5 per cent. In addition, both zones contain exploitable deposits of iron ore (magnetite up to 68 per cent in iron content) and gold. Pilot plants erected at the site have indicated the feasibility of washing and beneficiating these ores preparatory to their evacuation, though the three major problems of water supply, transportation, and construction costs have thus far prevented their commerical exploitation. An adequate supply of underground water has been found near Akjoujt and at Oued Sequelid, 30 miles distant, though at rather high withdrawal costs. A rail link tying Akjoujt with the MIFERMA railroad would appear to provide a solution for the evacuation problem, with Port-Étienne serving as the export point for the enriched ore. This solution is far superior to the alternate proposal of constructing a rail line or road to and a mineral wharf at Nouakchott. The sole remaining problem is that of financing, with the uncertainties and fluctuations of the international copper market causing a temporary reluctance to procede with this project. However, it is virutally certain that within a few years this source of copper, the only one of any importance within the entire franc zone, will be supplying a portion of the imports of France.[8]

[8] See Chenières, Jean, "Le Cuivre d' Akjoujt," Europe-France Outremer, No. 363 (Février 1960), 37-40.
"Le Cuivre d' Akjoujt," Industries et Travaux d' Outremer, No. 75 (Février 1960), 93-95.

Secondary Exports of the Port-Étienne Hinterland

The opening of Port-Étienne to deep-draft shipping and the extension and improvement of servicing transport facilities are certain to expand the present-day restricted hinterland of Port-Étienne, and to encourage the development of other exports. In addition to the eventual annual evacuation of 6 million tons of iron ore from Fort-Gouraud, and the estimated 70,000 tons of concentrated copper ore and close to 500,000 tons of iron ore from Akjoujt, additional mineral exports are possible and likely. Twelve miles southeast of Akjoujt, at Legleitat el Khado, a deposit estimated at 15 million tons of hematite iron ore exists--ore without harmful impurities and with a metal content of 50-55 per cent. Concurrent with commercial exploitation of the Akjoujt copper deposit, this iron reserve can produce up to one million tons of ore annually. Additional, though less defined, deposits of copper, iron, tungsten, gypsum, tin, sulfur, phosphates, titanium, and ilmenite exist, but further study of these and other deposits is required to determine their commercial value. In addition, petroleum prospection, which is still in the preliminary stage, could reveal additional mineral finds in this largely sedimentary country.

Agriculture offers little hope for an increase in Mauritanian exports. The desertic and sahelian climatic zones which encompass the entire country permit limited variety and quantity in this field. The limited oases north of the Senegal River Valley produce a little wheat and dates, virtually all of which are locally consumed, though

approximately 500 tons of dates move to the markets of Senegal, Mali, and the Ivory Coast. Little expansion is foreseen in this trade. The relatively rich valley of the Senegal River, once improved, might produce a surplus of cotton, rice, and other commodities, but these would drain naturally down the Senegal River to Saint-Louis or Dakar, and avoid Port-Étienne. Similarly, the gathering of gum arabic from the wild acacia trees south of the 17th parallel, principally in the cercles of Trarza, Brakna, Assaba, and Hodh, which figured in the historic rivalry between the European powers, would drain naturally down the Senegal River. Annual production ranges between 2,000-3,000 tons, with little hope for expansion in view of the virtual Sudanese monopoly. And finally, stock raising, which is practiced by over three-quarters of the population and accounts for approximately 80 per cent of the value of Mauritania's current exports, could provide only a limited quantity of hides and skins for overseas markets, since most of the beasts are shipped overland to the markets of Senegal, Mali, and countries further south.

Conclusion

The completion of the new port at Port-Étienne, the construction of the new railroad to Fort-Gouraud plus subsidiary transportation links, and the full-scale operations of MIFERMA and MICUMA are expected to increase the domestic revenues of Mauritania eightfold and substantially reduce or completely eliminate the present-day

reliance on outside economic assistance.[9] In addition, Port-Étienne will replace Dakar as the servicing port for a good portion of Mauritania, the exact extent depending upon national pressures and the possibility of a wharf being constructed at Nouakchott, the new capital of Mauritania. Under existing conditions, Port-Étienne will have a natural hinterland encompassing northern Mauritania, including the centers of Fort-Gouraud, Akjoujt, and Atar. Its hinterland could be extended to Nouakchott if the existing trail between the two centers is improved and if Nouakchott does not get a wharf of its own. Should the wharf at Nouakchott be constructed, a question of prestige rather than economics, a certain, though limited, hinterland must be assigned to it. Southern Mauritania and the Senegal River Valley will continue to be serviced by Dakar or possibly a rejuvenated port of Saint-Louis. Thus, the most populous and wealthiest portion of Mauritania, from the standpoint of climate, soil, and agriculture, will very likely continue to be dependent upon an extra-national port. This is the probable future pattern of development unless relations between Senegal and Mauritania deteriorate and/or national pressures force the development of Port-Étienne and Nouakchott as the sole ports servicing Mauritania.[10] The added burden of such a course of events would bear more heavily on the fragile economy of Mauritania than on Dakar, whose trade with Mauritania accounts for only 5 per cent of its total imports

[9] "La Republique Islamique de Mauritanie," loc. cit., p. 45.

[10] At present, relations between the two countries are somewhat less than friendly, a situation explained more by cultural than by political differences, in contrast with the Mali-Senegalese detente.

and an even smaller per centage of its exports. Thus, for the foreseeable future, Port-Étienne is destined to be almost solely a mineral and fishing port plus the commercial center for the sparsely populated northern portion of Mauritania. In any event, the traditional north-south trading axis of Mauritania, centering on Senegal and Dakar, is soon to be superseded in part by an east-west axis leading to Port-Étienne, an important development in the newly emerging port pattern of former French West Africa.

Sources

1 Gayet, Georges. "La République Islamique de Mauritanie," L'Afrique Française, (Mars-Avril 1959), 33-36.

2 La Documentation Française. "La République Islamique de Mauritanie," Notes et Études Documentaires, No. 2, 687 (29 Juillet 1960).

3 Didier, Henry. "Port-Étienne: son aménagement, son avenir," Industries et Travaux d'Outremer, No. 75 (Février 1960), 61-71.

4 Noguier, Pierre. "Port-Étienne: port de pêche et de commerce de la Mauritanie," Industries et Travaux d'Outremer, No. 75 (Février 1960), 73-78.

5 Larrat, H. "La transformation des produits de la mer et l'essor de Port-Étienne," Industries et Travaux d'Outremer, No. 75 (Février 1960), 79-91.

6 "Le Cuivre D'A kjoujt," Industries et Travaux d'Outremer, No. 75 (Février 1960), 93-95.

7 "Le fer de Fort-Gouraud," Industries et Travaux d'Outremer, No. 75 (Février 1960), 96-98.

8 Robin, Jean. "Le fer de Fort-Gouraud," Europe-France Outremer, No. 363 (Février 1960), 31-35.

9 Chenières, Jean. "Le Cuivre d'Akjoujt," Europe-France Outremer, No. 363 (Février 1960), 37-40.

10 "Port-Étienne: Future Fenêtre Atlantique de la Mauritanie," Europe-France Outremer, No. 363 (Février 1960), 48-51.

Sources (continued)

11 The Islamic Republic of Mauritania. New York, French Embassy Press and Information Service, 1960.

12 Personal interviews and field work in Africa.